Participatory Media for Education: Driving Student-Centered Learning

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ABSTRACT

With the advent of Web 2.0 technologies, participation and collaboration have become predominant experiences on the Web. The teaching and learning community, as a whole, has been late to capitalize on these technologies in the classroom. How can we support pedagogical change with web-based course management systems and participatory media? Our research will attempt to answer this question through observation and analysis of faculty and student use of the tools in the course context, interviews with faculty and instructional support designers and a comprehensive research review. This poster reports some preliminary findings from a pilot study using the Social Media Classroom (SMC, 2009), a lightweight, open course site solution with embedded social media tools such as wikis, blogs, forums, chatrooms and social bookmarking, and will outline the following components: (1) Use of the Social Media Classroom in three I School courses, (2) Student/Instructor usage patterns, expectations, evaluations and best practices across courses, (3) Top-rated features we built to make the SMC more robust, which have since been released to the open community and (4) Implications for future research.

Categories and Subject Descriptors

K.3.1 [**Computers and Education**] : Computer Uses in Education - *Collaborative learning*

General Terms

Management, Measurement, Design, Human Factors, Standardization, Theory

Keywords

Teaching and learning, education technology, social media, participatory media

INTRODUCTION

In the last 15 years, Web technologies, such as Learning Management Systems (LMS), have shifted the traditional teaching and learning paradigm by extending classroom borders, capturing and persisting course content and giving teachers more flexibility and access to students and other resources. However, most of these technologies and systems also constrained and limited the evolution of teaching and learning by supporting a traditional, instructional framework. Each LMS simply enabled and guided teachers to provide ("upload") all the course materials. Students were still seen as the end-users or consumers of the information.

With the advent of Web 2.0 technologies, participation and collaboration have become predominant experiences on the Web. The teaching and learning community, as a whole, has been late to capitalize on these technologies in the classroom, perhaps because of uncertainty around how to incorporate them, or due to constraints imposed by the LMS. Additionally, part of the delay in uptake stems from the fact that participatory media tools require an additional shift in educational paradigms, from instructional, on-the-pulpit type of teaching, to a student-centered, adaptive environment where students can contribute to the course material and learn from one another.

Lately, there has been more and more buzz around the potential of these Web 2.0 tools and technologies to improve education. More people are exploring how the embedded ideas of user-generated content, network effects of mass participation, openness and low barriers to entry can be applied to traditional education axioms like student engagement, interaction in learning, and student ownership and management of learning. (Mason & Rennie, 2008) Additionally, there is increasing focus on the potential of student-centered learning paradigms and how these types of tools can support the shift. With roots in Papert's (1980) constructionism and Vygotsky's "Zone of proximal development" and apprenticeship models of learning (Rogoff, 1990), social and collaborative learning can enable students to construct a deeper understanding of material and lead to outcomes not possible in a strictly top-down learning environment.

How can we support pedagogical shifts using course systems and participatory media? Our research will attempt to answer this question through observation and analysis of faculty and student use of the tools in the course context, interviews with faculty and instructional support designers and a comprehensive research review. This poster reports some preliminary findings from a pilot study using the Social Media Classroom, a lightweight, open course site solution with embedded social media tools such as wikis, blogs, forums, chatrooms and social bookmarking, and will outline the following components:

- Use of the Social Media Classroom in three I School courses
- Student/teacher usage patterns, expectations, evaluations and best practices across courses
- Top-rated features we built to make the SMC more robust, which have since been released to the open community
- Implications for future research.

METHODS

We have implemented the Social Media Classroom (SMC) in three courses at the I School. The SMC is an open and freely accessible course site solution with embedded social media tools to support teaching and learning, and expand the course experience. The system was developed by Howard Rheingold in 2007 and formally released to the public in May 2009.

The SMC has two key features that position it as a powerful and potentially significant education solution for educators and researchers:

- **Openness** - open source, freely accessible and open educational content and resources
- **Embedded social media tools** - participatory tools including wikis, blogs, forums, chatrooms and social bookmarking, built directly into the course environment to empower social construction of knowledge and a student-centered learning environment

We have been observing usage patterns across all three courses, as well as a number of previous courses taught by Rheingold through the system. These courses are hybrid learning environments, where students attend a face-to-face class but also use the SMC to interact with the material and other classmates. The class sizes range from 30 to 40 students. We surveyed students at the beginning of the semester about their familiarities with the tools, as well as their perceptions around the educational value of each. We did a mid-semester survey to get evaluations of the site, as well as a more in-depth survey and interviews at the end of the semester to get a better understanding of the student experience with the system and individual tools.

We are also interviewing a number of faculty and teachers in the UC system to get a better understanding of obstacles and concerns around this type of technology, as well as developing a "readiness" measure to identify those instructors who are ready to incorporate a student-centered paradigm into their class, and how these tools and scaffolding materials around each can support them in doing so.

RESULTS

Our study is still in progress through the remainder of this semester. We will present detailed findings in February.

DISCUSSION / FUTURE DIRECTION

As previously mentioned, the teaching and learning community has been slow to adopt Web 2.0 participatory media tools into the classroom. We want to get a better understanding of why that is, and how to support those that are ready to adopt them. This requires a better understanding of multiple dimensions including, how the technologies are used by instructors and received by students, how to measure effectiveness of usage and best practices and scaffolding to support use. Based on our pilot study, interviews and research, we aim to further explore the following six areas, and provide our findings and future directions for each.

1. Patterns of use/Types of learners that emerge from these systems from collaborative learning environments
2. Types of learning/learning theory supported by this type of system (21st century skills, constructionist learning, etc.)
3. Student/Instructor expectations/evaluations
4. Effectiveness/Evaluation of participatory media tools for education
5. Supporting instructors in the shift to student-centered paradigm through these types of tools (scaffolding, best practices)
6. Model course site solution for hybrid and virtual learning (what tools to include, etc.)

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